



Leveraging National Resources for Innovation

To foster the collaborations needed to resolve tough national and industry challenges, Lawrence Livermore National Laboratory and Sandia National Laboratories have created a new venue for public-private innovation: the Livermore Valley Open Campus (LVOC).

At LVOC, private sector partners can access the rich resources of the national labs and work closely with lab experts on problems that can bolster industry, while strengthening national security and economic well-being.

A Bridge to Rich Lab Resources

LVOC builds bridges between the labs and potential partners, creating connections that can lead to new collaborations benefitting all parties through sharing of capabilities, expertise, and resources. The following examples highlight the power of such collaborations.

BIOTECH COLLABORATION CENTER

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Partners at the Biotech Collaboration Center are developing medical and biosecurity solutions, such as tools for rapid diagnosis of disease and the science needed to produce practical biofuels. A project to diagnose the sources of contamination of algal ponds, for example, promises to help overcome a barrier to biofuels production.

COMBUSTION RESEARCH FACILITY

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For decades, the Combustion Research Facility (CRF) has been delving into the complexities of combustion to provide the auto industry the science basis for improving engines—often working side-by-side with industry researchers. According to a top U.S. auto industry executive, every engine made today is cleaner and more efficient due to the CRF's work.

HIGH PERFORMANCE COMPUTING INNOVATION CENTER

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Industry collaborators connect to leading computing expertise and supercomputing resources through the High Performance Computing Innovation Center (HPCIC). In partnership with the lab, companies can pursue solutions in such areas as data-intensive computing, product prototyping and

validation, material compositions for 3D printing, and software scaling for high performance computing platforms.

CYBERSECURITY TECHNOLOGY RESEARCH LABORATORY

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The Cybersecurity Technologies Research Laboratory (CTRL) works with experts from across the country to advance the science of cybersecurity and develop, test, and implement cybersecurity approaches in real-world situations. The tight collaboration between industry and the labs helps ensure that powerful and advanced cybersecurity tools are applied to the toughest challenges faced by industry.

Collaborate with LVOC

To learn more about partnership possibilities, please visit lvoc.org.

SPACE SITUATIONAL AWARENESS LAB

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Offering such tools as research telescopes, a portable robotic mount for deployment at austere sites, and a testbed for developing advanced telescopes, the Space Situational Awareness (SSA) Lab develops new methods for characterizing space objects. A current project is demonstrating that many small satellites (≤ 250 kg) can deliver missions and performance comparable to today's large and more expensive satellites.

Building Tomorrow's Scientists

The open campus helps cultivate the next generation of skilled scientists and engineers by sharing the labs' knowledge through the following programs.

CENTER FOR CYBER DEFENDERS & CYBER TECHNOLOGIES ACADEMY

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The Center for Cyber Defenders (CCD) prepares college interns for cybersecurity careers in industry and government by providing hands-on training and opportunities to help secure a national lab information system. Targeting the potential of younger students, the Cyber Technologies Academy provides free classes for high school students intrigued by computer science and cybersecurity.

DISCOVERY CENTER

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Educating more than 8,000 visitors annually, the Discovery Center offers hands-on displays and interactive demonstrations to increase awareness of national lab science and technology programs. For some visitors, including thousands of elementary school children, the Discovery Center is a gateway that can lead in many

directions—such as the pursuit of further science education and careers.

TEACHER RESEARCH ACADEMY

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The Teacher Research Academy (TRA) offers professional development for middle school, high school, and community college faculty in such fast-moving science disciplines as biotechnology, fusion, astrophysics, and computer simulation. TRA's curriculum prepares teachers to provide their own students enhanced instruction, as well as an understanding of how science can be applied in the real world.

Explore the possibilities

For more information about additional capabilities at both national labs, please visit llnl.gov and sandia.gov

For more information about the Livermore Valley Open Campus, contact one of our representatives or visit lvoc.org

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